

## PROCEEDINGS OF THE NEW YORK ENTOMOLOGICAL SOCIETY

MEETING OF FEBRUARY 17, 1925

A regular meeting of the New York Entomological Society was held at 8 P. M. on February 17, 1925, in the American Museum of Natural History, Vice-President Henry Bird in the chair, with 12 members and four visitors present.

Mr. Weiss for the Program Committee announced Dr. Willem Rudolfs as the speaker at the meeting of March 3.

Mr. C. Gay, 36 Bridge St., New York City, was elected a member of the Society.

Mr. Barber announced the new Entomological journal, "The Pan-Pacific Entomologist."

The president announced the death on February 3 of Col. Thomas L. Casey. Action was deferred until after the meeting of the Brooklyn Entomological Society, of which he was a member.

Mr. E. Graywood Smyth made the address of the evening, "Personal Observations on the Food Habits of some species of *Epilachna* in Mexico and Guatemala, with special reference to the Mexican Bean Beetle (*Epilachna corrupta*) which may possibly invade New York State during the coming season," illustrated by specimens of several species, their larvæ, and maps showing the infested regions and the rate of progress. Among the facts brought out were the appearance of *corrupta* only after the beginning of the rainy season, their occurrence in the more temperate parts of Central America and their rapid spread in the United States after being accidentally introduced in Alabama. The food plants of *corrupta* and of several other species were determined and the relationship of some species, like *defecta* and *mexicana*, was established. Mr. Smyth's description of the regions in which he had spent many months was interesting, especially as to Cuernavaca, the locality for many Mexican species because of its relative accessibility. In reply to a question from Mr. Davis, Mr. Smyth said that mountain ranges isolate an intervening valley in which Cuernavaca is situated.

Mr. Smyth's remarks were discussed also by Messrs. Weiss, Nicolay, Angell and Mutchler, the latter exhibiting an illustrated article from a Washington newspaper, contributed by Mr. Shoemaker, in which the Bean Beetle was luridly portrayed.

Mr. Barber exhibited the pentatomid *Perillus splendens* which occurs in Southern California and Arizona. The specimen shown was, however, caught by Mr. Davis at his home, 146 Stuyvesant Place, attracted by the light.

## MEETING OF MARCH 3, 1925

A regular meeting of the New York Entomological Society was held at 8 P. M. on March 3, 1925, in the American Museum of Natural History, Vice-President Henry Bird in the chair, with 17 members and six visitors present.

Mr. Weiss reported for the Program Committee that Dr. Child and Mr. Barber would speak on March 17 and Dr. Felt on April 7.

The following new members were elected:

Frederick Lemmer, 688 Nye Ave., Irvington, N. J.

John M. Sheridan, 84 Amity St., Brooklyn.

Mr. Davis read a card from Mr. L. B. Woodruff written en route from Porto Rico to St. Thomas with Dr. Lutz.

Dr. Willem Rudolfs, biochemist in Entomology and chief, Sewage Investigations, N. J. State Agricultural Experiment Station, spoke on "Entomological and Other Life found in Sewage Disposal Plants," illustrated by photographs and drawings. He said in part that the bacteria and protozoa played a most important part in the decomposition of sewage in disposal plants, especially in those like the so-called Imhoff tanks at Plainfield, N. J. Six hundred to seven hundred protozoa per cubic centimeter are present in the sewage that leaves the house, which number may increase to 150,000 in the sludge and 250,000 in the liquid. These probably find their way into the sewage by wind or by the washing of vegetable food and are saprophagous in habit. Most of them belong to the flagellate division, a few are ciliate and two are stalked. Seventy species were found in the tanks and about 100 in the filter beds; original drawings were exhibited for the first time of these species, most of which are still undescribed. The insects are found chiefly in the filter beds and include springtails, bristle tails, earwigs, cockroaches, booklice, true bugs, beetles, caddis flies, butterflies, flies, ants, bees, mainly as larvæ. Spiders and snails also occur. The insects of importance are the springtails, flies and mosquitoes. One species of springtail, *Achorutes viatica*, has been of service in some localities by keeping the stones in the filter beds free from film. On the other hand, the millions of house flies and billions of Psychodid flies that breed in the disposal plants are a serious detriment. They have been partially removed by flooding the filter beds for 24 hours. *Culex pipiens* also breeds in great numbers and experiments as to its feeding habits indicate that its control may in time be accomplished. Apart from insects a small red spider has proved of interest in its relation to Psychodid larvæ.

Messrs. Weiss, Bird, Davis and others discussed Dr. Rudolf's remarks, leading him to explain the differences between fresh sewage with an acid odor and stale sewage with a rancid odor.

Mr. Davis recalled a sewer at Washington, D. C., where he and Mr. Shoemaker had collected insects as a striking example of the latter class or worse.

The economic view was also discussed, Mr. Davis feeling that we are trying to eat off the surface of the earth and throw it into the Atlantic ocean.

Mr. Jones exhibited a type specimen of *Hyaloscotes fumosa* Butler, one of the series obtained in Northern California by Lord Walsingham in 1872, which he had deposited in the American Museum of Natural History, having received it in exchange from the British Museum by vote of the trustees.

Mr. Mutchler exhibited a specimen of *Cychnus viduus* found at Hemlock Falls, February 21, by Miss Anita Neu.

Mr. Angell spoke of *Lucanus placidus* labeled West Farms by Mr. Angus, possibly in error.

Mr. Sherman called attention to the recent work by Mr. Snodgrass on the "Anatomy and Physiology of the Honey Bee."

#### MEETING OF MARCH 17, 1925

A regular meeting of the New York Entomological Society was held at 8 P. M. on March 17, 1925, in the American Museum of Natural History, Vice-President Henry Bird in the chair, with 19 members and two visitors present.

The Program Committee reported papers by Dr. Felt and Mr. Watson arranged for the following meeting.

Mr. Barber exhibited and discussed a box of Hemiptera from Cuba, submitted by S. E. Bruner, Las Vegas, dwelling especially on the distribution of the species, of which 8 were purely Cuban, 5 known to occur from other West Indian Islands, 9 known also from Florida, and 40 from a wider range, *i.e.*, West Indies, South and Central America and Mexico.

Dr. Childs, with copious illustration by original drawings, discussed the "Mid-intestinal Epithelium of four American species of Diplopods," with comparative reference to insects and other arthropods. The five layers of which the walls of the midgut are composed were described with the changes that occur in their cells at different stages of the life cycle. They were then treated under inanition and it was shown that similar results were produced during hibernation.

Mr. Mutchler exhibited the N. Y. *Times* magazine, showing Dr. Howard as the St. Patrick of the insect world.

Mr. Frederick Lemmer exhibited several specimens of the Geometrid moth, *Nacophora quernaria*, including a very black example of the variety *atrescens* Hulst, taken in the Orange Mountains some years ago on the 13th of June. He referred to the note on this species in *Entomological News* for December, 1922, where Shoemaker and Davis figure a somewhat differently marked example of this strikingly beautiful native moth. It, like Mr. Lemmer's specimen, was taken in the Orange Mountains, but at an earlier date, namely, April 23.